

1947 Year 015782 County WOOD

STORAGE DATA	
Folder	
Section File No.	FEP-41
Record Center No.	5A-037/42-02
Tracings	
Section File No.	FET-44
Record Center No.	4-M-44

Job No. _____ Project Ident. W00-25-(6.00)(10.47)
 Changes _____ (1.47)(13.32)

Proj. No. _____ Project Code

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Topo Sheet _____
 Begin Sta. 324+00
 End Sta. 724+50

Design By _____ Length 7.6 Miles

Drafting By	<u>SKL</u> <u>EEB</u>	Rev.
Comp. Date	<u>11-47</u>	
Drafting Hrs.		

	RECON	AUGER	CORE	DRIVE ROD	RESISTIVITY
By		<u>N.W.J.</u>			
Dates		<u>10/9/47</u>			
No. of Holes or Soundings					
Footage		<u>537.0</u>			
Samples Tested		<u>82</u>			

No. of Tracings 4

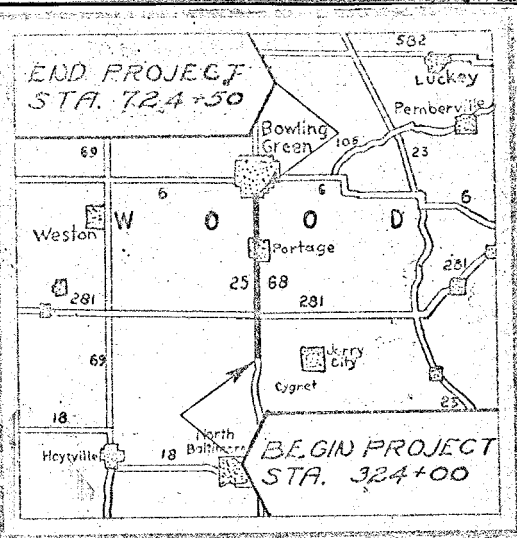
Remarks _____

Samples Accounted

Transmittal Date 11-26-47 Revisions _____ Refer to _____

Length	Auger Data			Core Data			Drive Rod Data		Resistivity
	No. of Holes	Footage	Samples	No. of Holes	Footage	Samples	No. of Soundings	Footage	No. of Locations
<u>7.6</u>		<u>537.0</u>	<u>82</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>

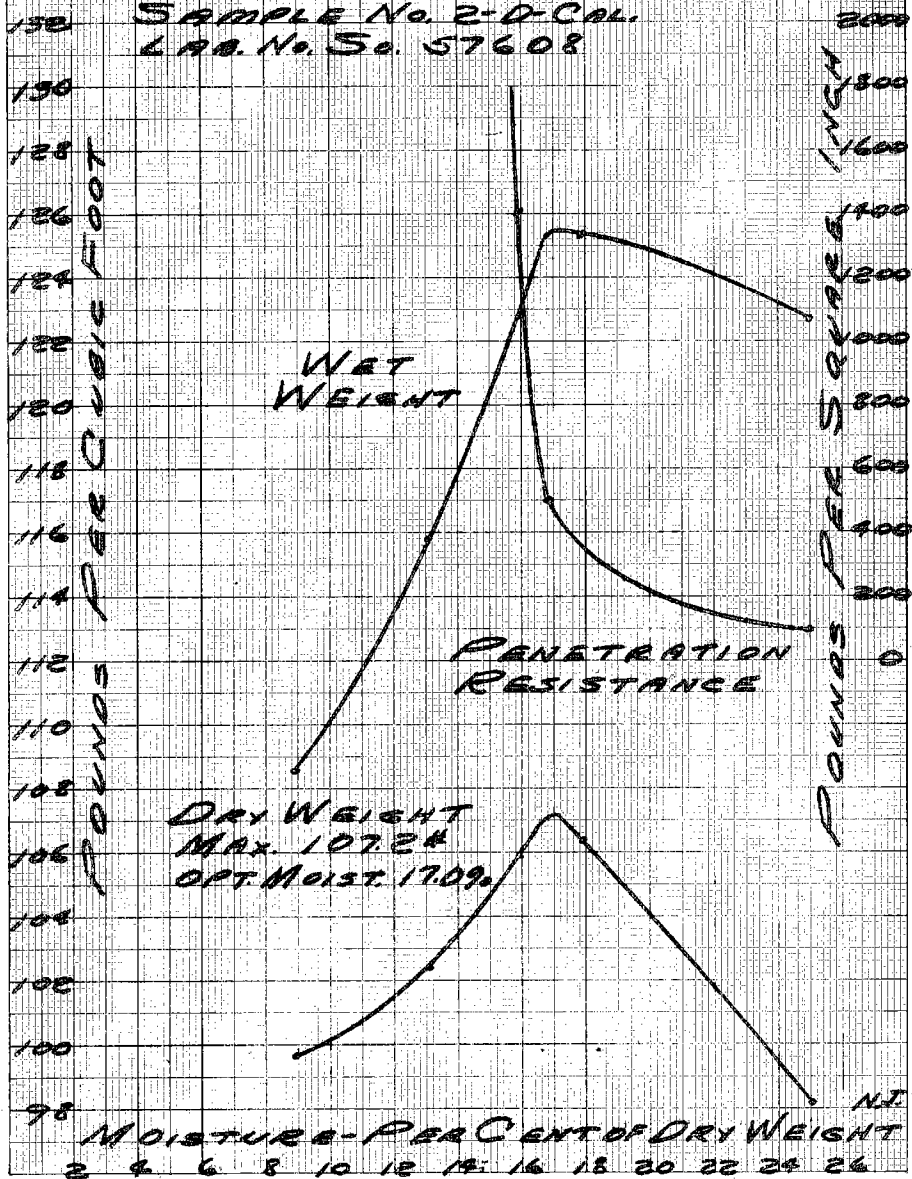
TOTAL SAMPLES					
Samples VOIDED	Auger	Drive	Samples USED	Auger	Drive
TOTAL MILEAGE					
Alignment	Stations		Mileage		
	From	To			



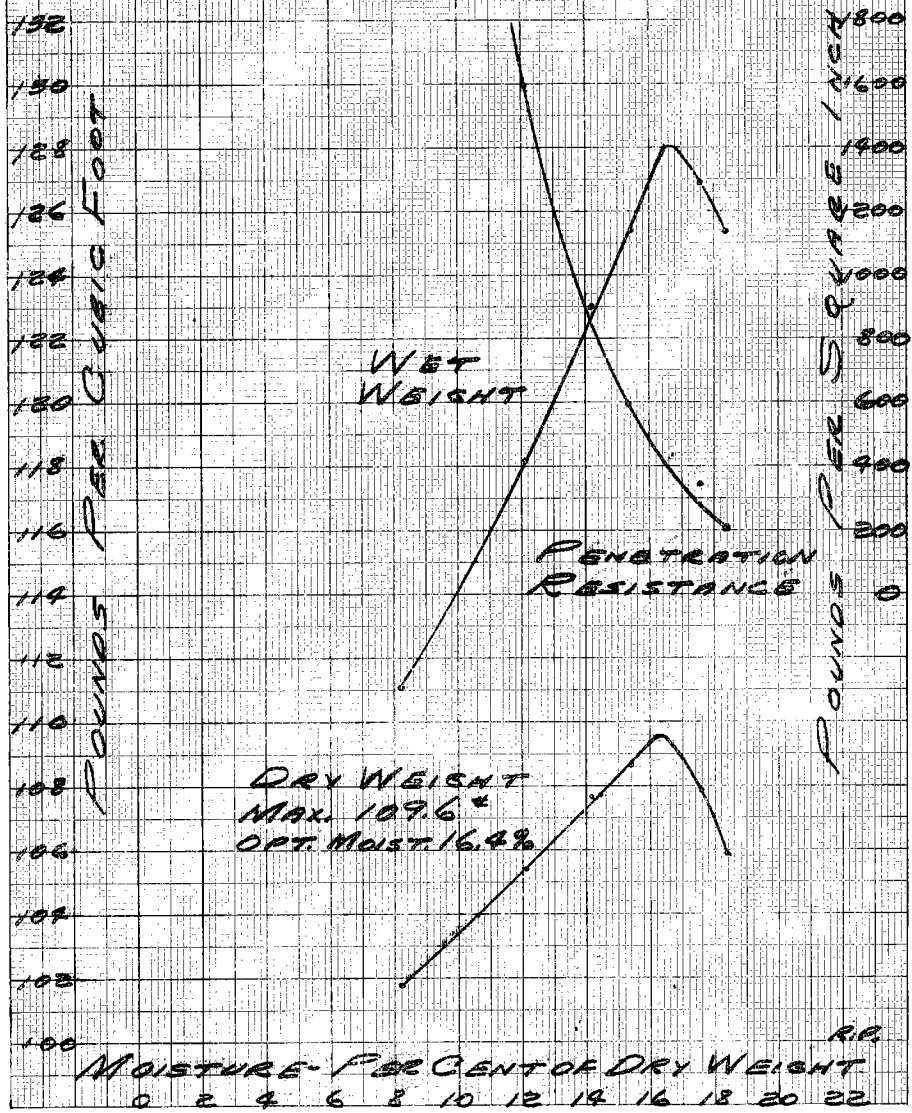
PLACE

015782

W00-25-6.00-13.32
 STA. 379+00
 SAMPLE No. 2-D-CAL.
 LAB. No. 50. 57608



W60-25-600-1332
 STA. 679+00 15' RT
 SAMPLE No. 1-D-CAL
 LAB. No. 50. 57607



SOIL PROFILE PROJECT SUMMARY

U.S.
 Route No. 25 Federal Project No. F-608 (B)
 Length of Project 76 Miles FINDLAY-BOWLING GREEN Road
 Present Surface _____ Proposed Surface _____
 Field Work By: N.W. JOHNSON Field Work 9 Days
 Field Work Complete 10-9-47 Drafting By: J.K.T.-E.E.B.
 Profile Sent Out: _____ Lin. Ft. Boring: 537.0
 Samples Insp. 363 Samples Tested 82 Total Samples 445
 Notes in Book No. 144

Group Number	Number of Samples	Aggregate %	Coarse Sand %	Fine Sand %	Silt %	Clay %	Liquid Limit %	P.I.	Moisture Content %	Density Data			
										No. of Samples	% Comp.	Optimum Moisture %	Dry Wt. #/Cu. Ft.
1													
2	8	57	10	14	12	7	25	9	10				
3	2	76	6	8	6	4	28	9					
4	8	6	18	51	13	12	22	5	15				
5													
6													
7													
8													
9	3	3	17	40	22	18	21	8	13				
10													
11	14	7	13	27	29	29	30	14	16				
12	7	7	19	35	30	15	41	14	37				
13													
14													
15	8	2	9	21	39	29	37	18	26	1	101.8	164	107.6
16	16	2	8	17	39	34	47	25	27				
17	22	5	10	17	36	32	39	22	19	1	93.5	170	107.2
18													
19													
20													
21													
22													
23													
24													

Lab. Numbers _____
 REMARKS: SAMPLES TESTED
LAB. Nos. 50. 57422-57465 INCL.
51. 57607-57644 INCL.
MOISTURE-DENSITY SAMPLES
LAB. Nos. 50. 57607-57608

SUMMARY OF TESTS ON SOIL PROFILE SUBGRADE SAMPLES

Woo-25-6.00, 13.32

County

Note Book No. 144

1

S.H.

Sec.

Lab. No. So.	Field No.	Station No.	Repre- sents Feet	Mechanical Analysis					Physical Charact.			Density Data			Class. No.		
				Agg. %	C Sand %	F Sand %	Silt %	Clay %	L.L.	P.I.	Water Content	Comp.	Opt.	Max. Dry Ft.	SHTL	FPA	
57424	3	327+00	12LT	0-1	71	5	6	10	8	36	18	10				2	
57438	17	397+00	25LT	1/2-1 3/4	65	9	9	12	5	25	9					"	
57455	34	477+00		2-3	71	4	10	9	6	28	13					"	
57609	45	566+00	14LT	1/2-1	42	16	15	19	8	23	8					"	
57613	49	583+00	23LT	1/2-2	74	6	6	10	4	34	10			A-2-4(0)		"	
57620	36	607+00	15LT	1/2-1	53	18	10	14	5	16	3					"	
57625	61	651+00	15LT	1/2-1	60	13	8	13	6	21	7					"	
57639	75	379+00	36LT	1/2-1	20	8	48	10	14	21	6					"	
				SUM	456	79	112	97	56	204	74						
				No. DET.	8												
				Ave.	57	10	14	12	7	25	9						
									3								
57442	21	409+00	4LT	1/2-1 1/2	85	2	3	6	4	34	17					3	
57460	39	522+00	12LT	2-3	67	10	14	5	4	22	N.P.					"	
				SUM	152	12	17	11	8	56	17			A-2-4(0)			
				No. DET.	2												
				Ave.	76	6	8	6	4	28	9						
57464	43	546+00	14LT	3/4-4	3	25	50	11	11	19	N.P.	13				4	
57463	42	546+00	14LT	1/2-1 1/2	15	18	37	17	13	23	7	11				"	
57462	41	530+00	14LT	3/4-5	0	17	67	10	6	N.P.	N.P.	16				"	
57461	40	522+00	12LT	3-5	4	16	52	13	15	23	8	20				"	
57457	36	501+00	14LT	3/4-5	2	15	55	17	11	21	7	18				"	
57447	20	438+00	13LT	1-2	1	19	70	4	6	N.P.	N.P.	14				"	
57437	16	371+00	10LT	2-5	21	18	31	15	15	23	7	12				"	
57429	8	358+00		1-2	0	20	48	15	17	25	10	15				"	
				SUM	46	148	410	102	94	134	39	119					
				No. DET.	8					6	8						
				Ave.	6	18	51	13	12	22	5	15			A-2-4(0)		

SUMMARY OF TESTS OF SOIL PROFILE SUBGRADE SAMPLES

W60-25-6.00, 13.32

County

Note Book No. 144

2

S.H.

Sec.

Lab. No. So.	Field No.	Station No.	Represents Feet	Mechanical Analysis					Physical Charact.			Density Data			Class. No.		
				Agg. %	C Sand %	F Sand %	Silt %	Clay %	L.L.	P.I.	Water Content	Comp.	Opt.	Max. Dry Ft.	SHTL	FPA	
57430	9	358+00	2-5	2	20	39	16	23	9	20	8	13					9
57621	57	607+00 15 RT	1-2 1/2	6	20	29	30	15	21	6	12						"
57643	79	546+00 36 RT	2-3 1/2	0	11	52	22	15	23	10	14						"
			SUM.	8	51	120	68	53	64	24	39						A-4 (11)
			No. DET.	3													
			Ave.	3	17	40	22	18	21	8	13						
57444	23	417+00 12 LT	3-4 1/2	8	13	16	40	23	11	31	15	21					11
57445	24	435+00 14 RT	4-3	7	11	22	28	32	33	16	16						"
57450	29	425+00 9 LT	2-5	2	9	40	22	27	29	13	20						"
57454	33	477+00 14 RT	4-2	12	12	58	17	21	24	11	12						"
57458	37	505+00 15 RT	3 1/2-5	2	8	20	27	43	32	16	14						"
57459	38	522+00 12 RT	4-2	21	12	28	19	20	30	15	13						"
57615	51	588+00 28 RT	2-3 1/2	18	13	30	21	18	26	13	17						"
57617	53	576+25 28 RT	4-2	6	22	15	35	22	28	11	10						"
57623	64	674+00 15 RT	4-2	1	12	23	43	21	32	16	16						"
57629	65	683+00 15 RT	3 1/2-5	2	15	35	25	23	28	14	16						"
57630	66	703+00 15 RT	4-2	3	15	23	36	23	30	15	13						"
57641	77	574+00 36 LT	2 1/2-5	3	20	34	26	17	31	17	23						"
57642	78	546+00 36 LT	4-2	0	8	41	34	17	31	14	16						"
57644	80	546+00 36 RT	3 1/2-5	6	10	16	40	28	30	15	15						"
			SUM.	91	180	381	413	335	415	201	224						
			No. DET.	14													
			Ave.	7	13	27	29	24	30	14	16						A-6 (5)
57640	76	379+00 36 LT	1-2 1/2	1	19	35	30	15	41	14	37						A-7-6 (3) 12

W60-25-6.00, 13.32

SUMMARY OF TESTS ON SOIL PROFILE SURGRADE SAMPLES

County

Note Book No. 144

3

S.H.

Sec.

Lab. No. So.	Field No.	Station No.	Represents Feet	Mechanical Analysis					Physical Charact.			Density Data		Class. No.		
				Agg. %	C Sand %	F Sand %	Silt %	Clay %	L.L.	P.I.	Water Content	Comp.	Opt.	Max. Dry Ft.	SHTL	FRA
57427	6	333+00 7 1/2 T.	4 1/2-5	3	13	19	50	15	43	17	57					15
57433	12	376+00 10 1/2 T.	1 1/2-2	3	13	27	28	29	38	18	24					"
57434	13	376+00 10 1/2 T.	2-3 1/2	3	11	19	29	38	39	20	24					"
57443	22	417+00 12 1/2 T.	1 1/2-3	1	9	15	39	36	40	19	23					"
57452	31	457+00 10 1/2 T.	2 1/2-5	0	8	28	34	30	54	17	23					"
57607	10-C	679+00 15 1/2 T.	1-1 1/2	2	11	23	43	21	34	16	18	101.8	10A	109.6		"
57622	58	607+00 15 1/2 T.	2 1/2-3 1/2	1	9	14	43	33	37	18	21					"
57626	62	651+00 15 1/2 T.	1-2	2	10	20	37	31	33	16	17					"
			SUM	15	84	165	303	233	298	141	206					
			No. DET.	8												A-6 (10)
			Ave.	2	9	21	39	29	37	18	26					
57423	2	324+50 17 1/2 T.	2 1/2-5	3	6	10	39	10	53	30	26					16
57425	4	323+00 7 1/2 T.	1 1/2-2 1/2	2	6	8	38	46	54	29	32					"
57426	5	333+00 7 1/2 T.	2 1/2-4 1/2	2	4	7	31	56	64	38	35					"
57428	7	352+00	2-5	0	4	4	31	61	58	35	31					"
57431	10	361+00	1 1/2-5	0	14	28	27	31	36	18	20					"
57432	11	364+00	1 1/2-2	2	16	23	23	36	40	22	26					"
57435	14	388+00 11 1/2 T.	2-3 1/2	1	9	20	37	33	46	26	25					"
57436	15	388+00 11 1/2 T.	3 1/2-5	3	8	12	29	43	46	25	30					"
57441	20	406+00 24 1/2 T.	4 1/2-5	0	6	11	24	59	49	28	33					"
57451	30	451+00 10 1/2 T.	1 1/2-2	3	3	22	39	39	41	20	25					"
57456	35	477+00 14 1/2 T.	3-5	2	5	13	53	27	47	20	32					"
57465	44	546+00 14 1/2 T.	4-5	0	9	22	29	40	40	21	26					"
57623	59	615+00 14 1/2 T.	3-5	1	6	12	40	41	52	30	30					"
57632	68	707+00 14 1/2 T.	2 1/2-5	3	9	13	42	33	45	25	21					"
57633	69	716+00 10 1/2 T.	1-2 1/2	5	11	19	39	26	42	22	21					"
57637	73	679+00 26 1/2 T.	1 1/2-2	1	10	14	42	33	42	18	24					"
			SUM	28	126	238	563	645	755	407	437					
			No. DET.	10												A-7-6 (15)
			Ave.	2	8	17	39	34	47	25	27					

Woo-25-6.00, 1932

SUMMARY OF TESTS OF SOIL PROFILE SUBGRADE SAMPLES

County

Note Book No. 144

4

S.H.

Sec.

Lab. No. So.	Field No.	Station No.	Repre- sents Feet	Mechanical Analysis					Physical Charact.			Density Data			Class. No.		
				Agg. %	C Sand %	F Sand %	Silt %	Clay %	L.L.	P.I.	Water Content	Comp.	Opt.	Max. Dry Ft.	SHTL	FPA	
57422	1	324+50 17LT	162 1/2	13	15	21	26	25	17	35	19	18					17
57429	18	337+00 25LT	196 3/4	9	11	23	29	34	34	35	19	18					"
57440	19	397+00 25LT	246 1/2	0	3	13	45	39	44	44	27	22					"
57446	25	435+00 14LT	3-5	1	10	25	37	27	37	21	21	23					"
57448	27	438+00 13LT	4-5	17	11	16	28	28	36	19	21	21					"
57449	28	442+00 18LT	5-5	3	5	20	33	33	38	23	22	22					"
57453	32	465+00 10LT	3-5	0	7	16	31	46	47	28	24	24					"
57608	20-C	379+00	1-1 1/2	3	11	21	33	32	39	21	18	18	98.3	17.0	107.2		"
57610	46	566+00 14LT	1-2 1/2	3	9	15	45	28	38	20	14	14					"
57611	47	566+00 14LT	2 1/2-5	5	11	15	40	29	37	20	20	20					"
57612	48	579+00 21LT	2-5	3	9	15	41	32	39	22	17	17					"
57614	50	583+00 23LT	2-5	0	8	11	42	33	42	24	18	18					"
57616	52	592+00 23LT	5 1/2-5	2	7	3	32	56	44	25	16	16					"
57618	54	596+25 23LT	2-4	4	8	13	43	32	40	22	17	17					"
57619	55	603+75 25LT	2-3 1/2	0	5	11	41	43	45	27	19	19					"
57624	60	631+00 15LT	4-5	1	9	16	41	33	42	24	20	20					"
57627	63	651+00 15LT	2-5	3	8	17	34	38	41	24	20	20					"
57631	67	703+00 15LT	2 1/2-5	9	21	17	28	25	36	21	17	17					"
57634	70	715+00 10LT	2 1/2-5	5	14	20	33	28	37	21	18	18					"
57635	71	719+00 10LT	3 1/2-5	2	12	20	39	27	34	19	20	20					"
57636	72	723+00 25LT	2-4	31	21	14	18	16	36	20	18	18					"
57638	74	679+00 26LT	2-5	0	9	15	43	33	44	26	19	19					"
			SUM	114	224	363	782	717	866	492	419	419					
			No. Test	22													
			Ave.	5	10	17	36	32	39	22	19	19					

A-6 (II)

Soil Sec.

Wood
U.S.R. 25 6.00, 13.47,
11.47 and
13.32

November 26, 1947

Mr. G. J. Thorwyer, Chief Engineer
Bureau of Location and Design
R. R. Litchiser per C. H. Shepard

Mr. F. K. Masheter

Fed. No. F-608 (3)

Soil Profile

File: 17-1-1,
Wood

As requested by Mr. J. H. Hilty's communication dated September 15, enclosed are copies of the Soil Profile for the project listed above. For this improvement it is planned to construct a new pavement parallel to the existing pavement, with a median strip between the present road and the new construction. From conversations with Mr. Ross Schultz during our work on the Soil Profile, it is our understanding that at that time it was not definitely established on which side of the existing road the new pavement would be placed. The auger borings for this profile were located right or left of the survey centerline as follows: From the beginning of the project to Station 406, left of survey centerline; from Station 406 to Station 562, successive auger borings were alternated from left to right of survey centerline; and from Station 562 to the end of the project, right of survey centerline.

The profile shows that the subgrade consists of a wide variety of soil types, including A-4 sandy silt, sand, granular material composed principally of limestone, A-6 silt clay, and A-7 clay, with the A-6 and A-7 clays predominating. Note that free water was encountered in the subgrade in three borings between Station 377 and Station 445 and at Station 707. Also, at Stations 501 and 514, water contents near the liquid limit were encountered in the S.H.T.L. Classification 4 material, which consists principally of fine sand. Adequate drainage is recommended for these areas.

For the variable subgrade and the heavy traffic on the road, it is our opinion that the use of a granular blanket course is desirable throughout the job. Granular material meeting MS-112 requirements is available at the Wood County Stone and Construction Company located adjacent to the job. Note that fairly uniform sections of A-6 and A-7 clay subgrade, S.H.T.L. Classifications 16 and 17, exist at the following locations: Stations 324 to 370; 396 to 411; 564 to 606; 659 to 679; and 711 to the end of the project. On these impermeable clays of high plasticity and low stability, a granular blanket course is particularly indicated. It is suggested that consideration be given to using a greater total pavement thickness for these areas of clay subgrade than for the balance of the project.

R. R. Litchiser
Chief Engineer
Testing and Research Laboratory

CHS:G

Per

CC: Mr. Ross Schultz
Mr. W. B. Robinson (2)
Mr. August Schofer (3)

C. H. Shepard,
Engineer

LEGEND FOR PROJECT-AVERAGE RESULTS OF TESTS - 82 SAMPLES TESTED

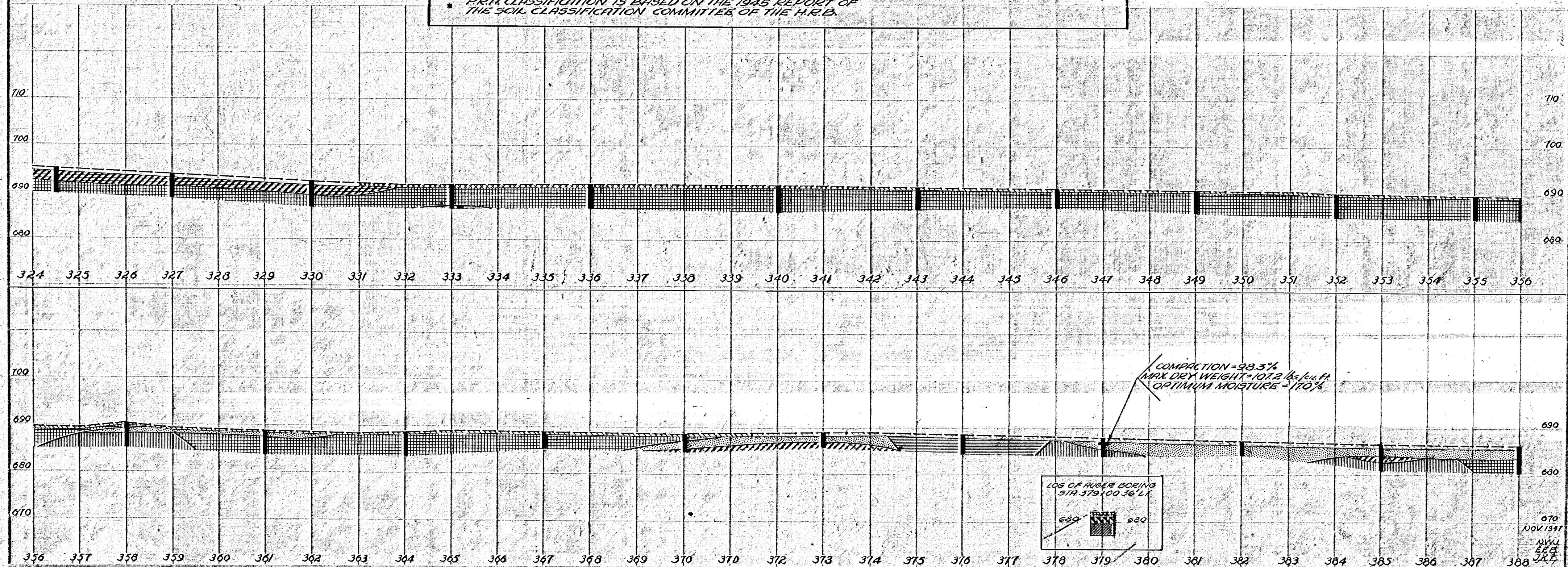
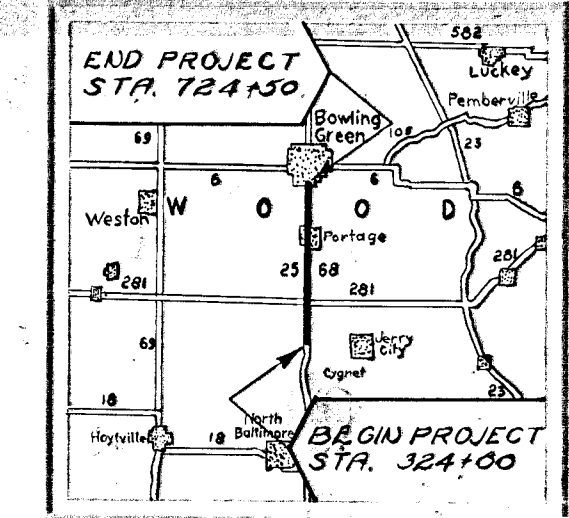
	#P.R.A. CLASS	S.H.T.L. CLASS	% AGG.	% C. SAND	% F. SAND	% SILT	% CLAY	LIQUID LIMIT	PLASTICITY INDEX	WATER CONTENT	SAMPLES TESTED
STONE FRAGMENTS, SAND & SILT	A-2-A(0)	2	57	10	14	12	7	25	9	10	8
STONE FRAGMENTS & SAND	A-2-A(0)	5	76	6	8	6	4	28	9		2
SAND	A-2-A(0)	4	6	13	51	13	12	22	5	15	3
BERM MATERIAL		7	CLASSIFIED BY VISUAL INSPECTION								
SANDY SILT	A-4(1)	9	3	17	40	22	18	21	8	13	3
TOP SOIL		10	CLASSIFIED BY VISUAL INSPECTION								
SANDY SILT & CLAY	A-6(3)	11	7	13	27	29	24	30	14	16	14
ELASTIC SILT & CLAY	A-7(3)	12	1	19	35	30	15	41	14	37	1
CLAY & SILT	A-6(10)	15	2	9	21	39	29	37	13	26	8
CLAY	A-7(5)	16	2	8	17	39	34	47	25	27	16
CLAY	A-6(11)	17	5	10	17	36	32	39	22	19	22
VARIOUS SIZED CRUSHED LIMESTONE		18	CLASSIFIED BY VISUAL INSPECTION								

— AUGER BORINGS-TO VERTICAL SCALE ONLY
 — EXISTING PAVEMENT
 ● WATER CONTENT NEARLY EQUAL TO OR GREATER THAN THE LIQUID LIMIT
 * P.R.A. CLASSIFICATION IS BASED ON THE 1945 REPORT OF THE SOIL CLASSIFICATION COMMITTEE OF THE H.R.E.

SAMPLES TESTED
 LAB. NO'S. SO. 57422-57465 INCL.
 & 57601-57644 INCL.
 MOISTURE-DENSITY SAMPLES
 LAB. NO'S. SO. 57607 & 57608

SOIL PROFILE
 WOOD COUNTY
 U. S. R. 25
 SEC. 6.00, 10.47, 11.47 & 13.32
 STATE HIGHWAY TESTING LABORATORY
 19 S. U. CAMPUS, COLUMBUS, OHIO













NOTE: THE INFORMATION SHOWN BY THIS SUBGRADE PROFILE WAS SECURED FOR THE INFORMATION OF THE STATE OF OHIO. THE STATE DOES NOT GUARANTEE THE CORRECTNESS THEREOF AND DOES NOT INCLUDE IT AS A PART OF THE PLANS GOVERNING THE CONSTRUCTION OF THE PROJECT.
 FED. NO. F-608(8)



LOG OF AUGER BORING
 STA 379 100 36' LT

670
 1001/1997
 NMM
 428
 JRT

LEGEND FOR PROJECT-AVERAGE RESULTS OF TESTS - 82 SAMPLES TESTED

	*P.R.A. CLASS	S.H.T.L. CLASS	% AGG.	% C. SAND	% F. SAND	% SILT	% CLAY	LIQUID LIMIT	PLASTICITY INDEX	WATER CONTENT	SAMPLES TESTED
	A-2-4(0)	2	57	10	14	12	7	26	9	10	8
	A-2-4(0)	3	76	6	8	6	4	28	9		2
	A-2-4(0)	4	6	18	51	13	12	22	5	15	8
		7									
CLASSIFIED BY VISUAL INSPECTION											
	A-4(1)	9	3	17	40	22	18	21	8	13	3
		10									
CLASSIFIED BY VISUAL INSPECTION											
	A-6(3)	11	7	13	27	29	24	30	14	16	14
	A-7-6(3)	12	1	19	35	30	15	41	14	37	1
	A-6(10)	15	2	9	21	39	29	37	18	26	8
	A-7-6(15)	16	2	8	17	39	34	47	25	27	16
	A-6(11)	17	5	10	17	36	32	39	22	19	22
		18									
CLASSIFIED BY VISUAL INSPECTION											

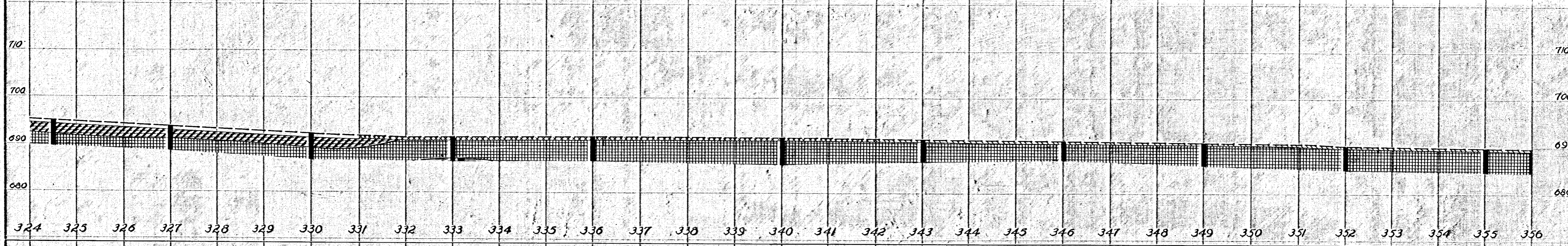
 - AUGER BORINGS-TO VERTICAL SCALE ONLY

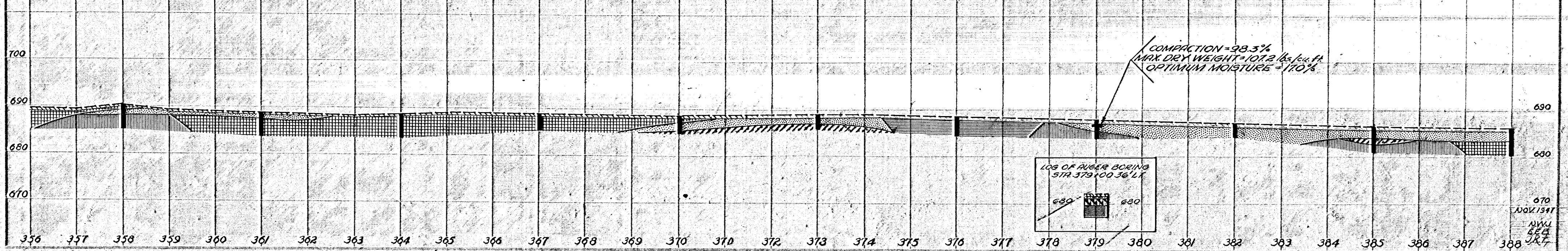
 EXISTING PAVEMENT

● WATER CONTENT NEARLY EQUAL TO OR GREATER THAN THE LIQUID LIMIT

* P.R.A. CLASSIFICATION IS BASED ON THE 1945 REPORT OF THE SOIL CLASSIFICATION COMMITTEE OF THE H.R.B.

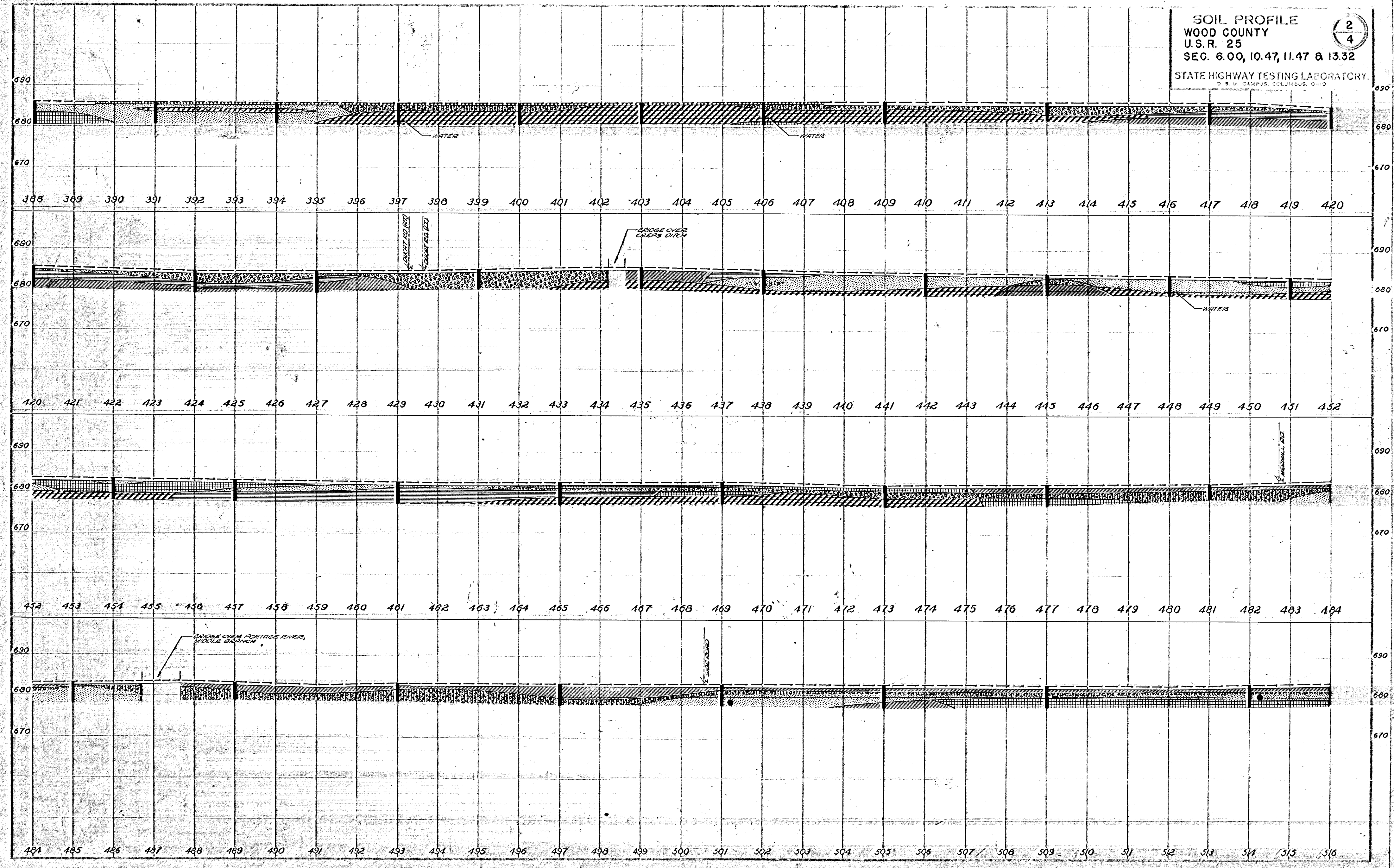
SAMPLES TESTED
LAB. NO'S. SO. 57422-57465 INCL.
& 57607-57644 INCL.
MOISTURE-DENSITY SAMPLES
LAB. NO'S. SO. 57607 & 57608



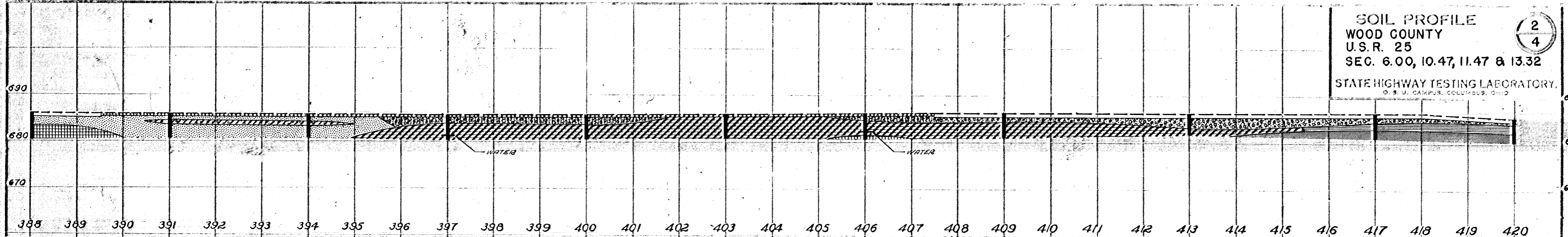


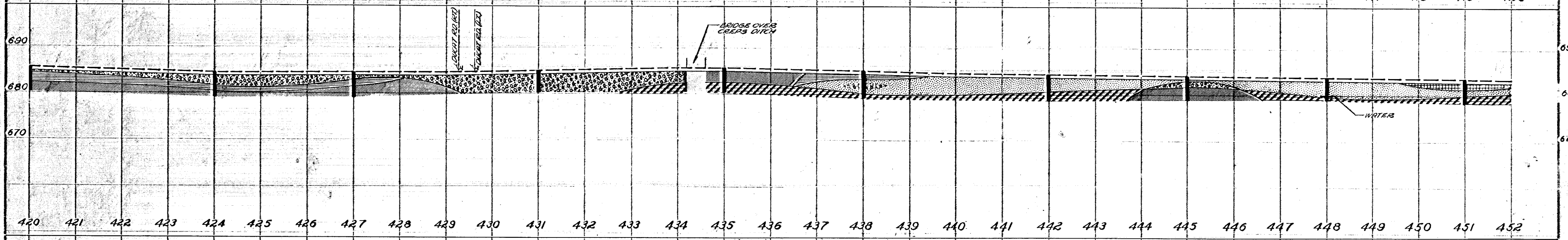
SOIL PROFILE
 WOOD COUNTY
 U.S.R. 25
 SEC. 6.00, 10.47, 11.47 & 13.32
 STATE HIGHWAY TESTING LABORATORY
 O. S. J. CAMPUS, COLUMBUS, OHIO

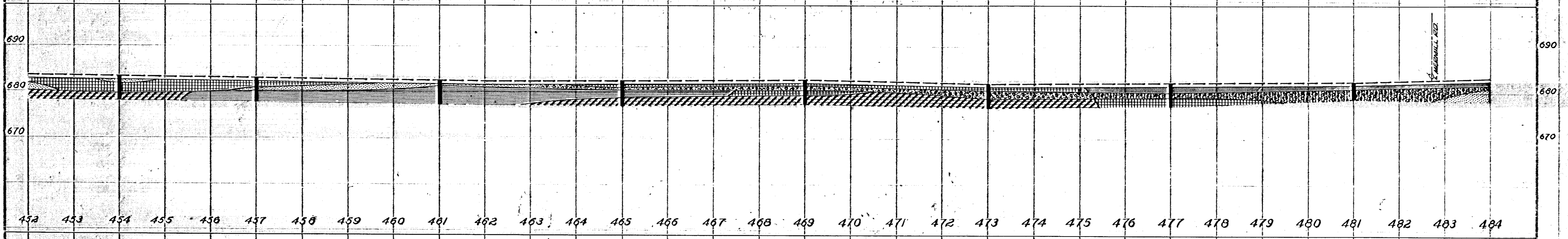
2
4



SOIL PROFILE
 WOOD COUNTY
 U.S.R. 25
 SEC. 6.00, 10.47, 11.47 & 13.32
 STATE HIGHWAY TESTING LABORATORY.
 O. S. U. CAMPUS, COLUMBUS, OHIO







690

690

680

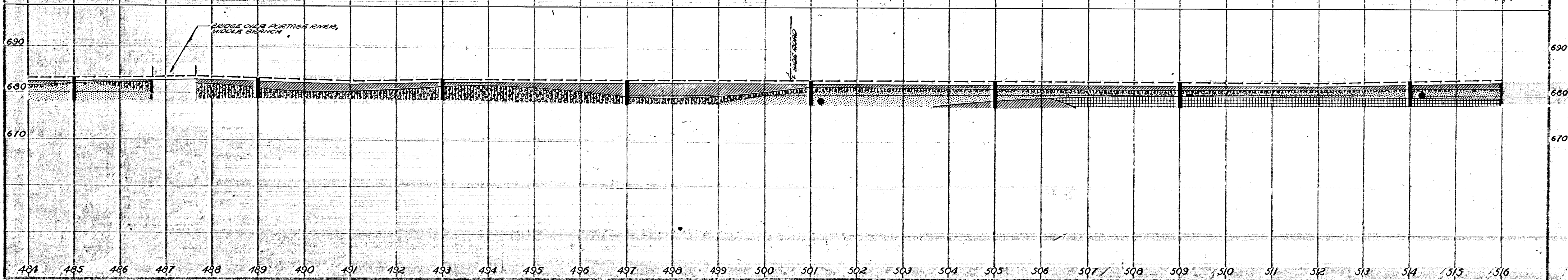
680

670

670

452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484

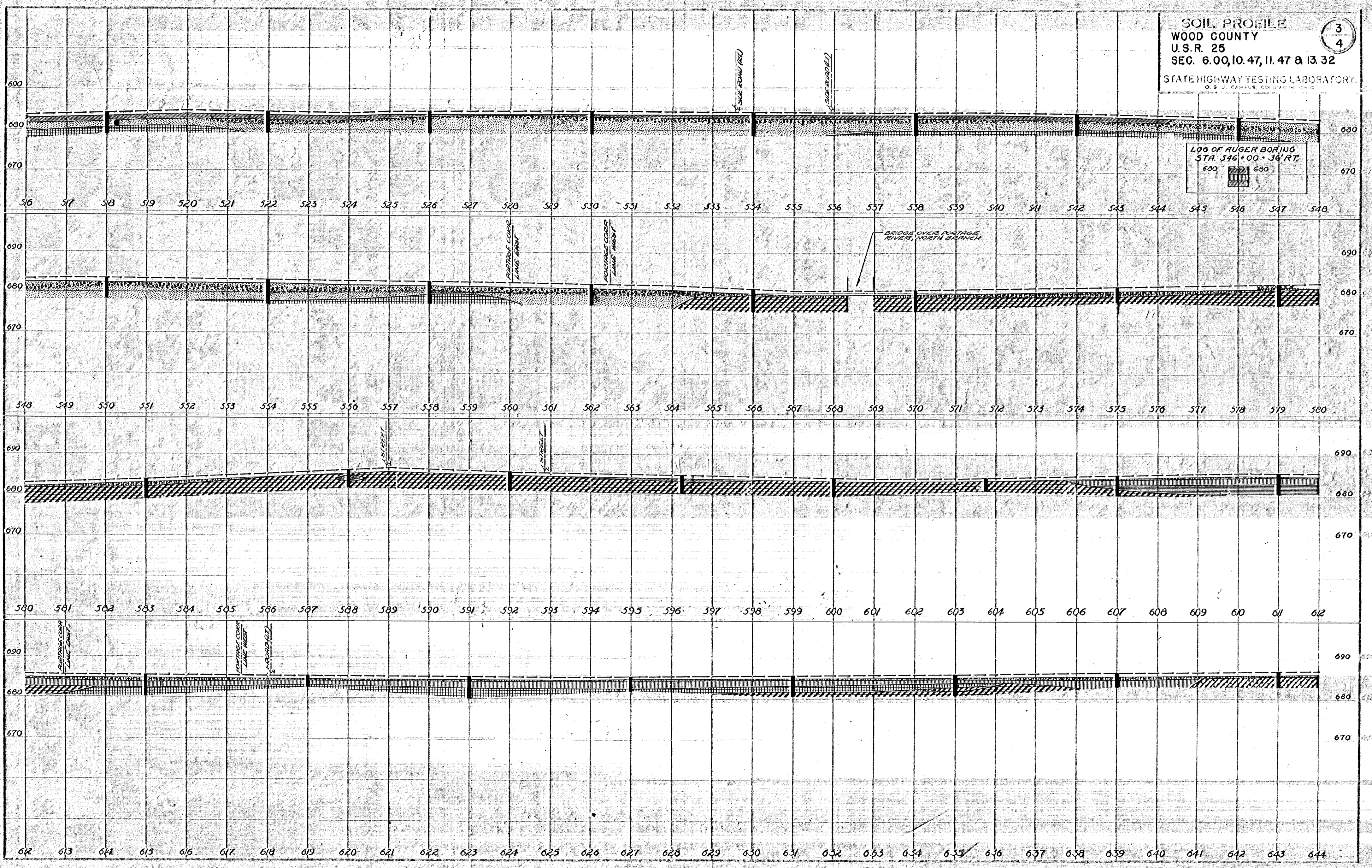
MEEMILL RD.



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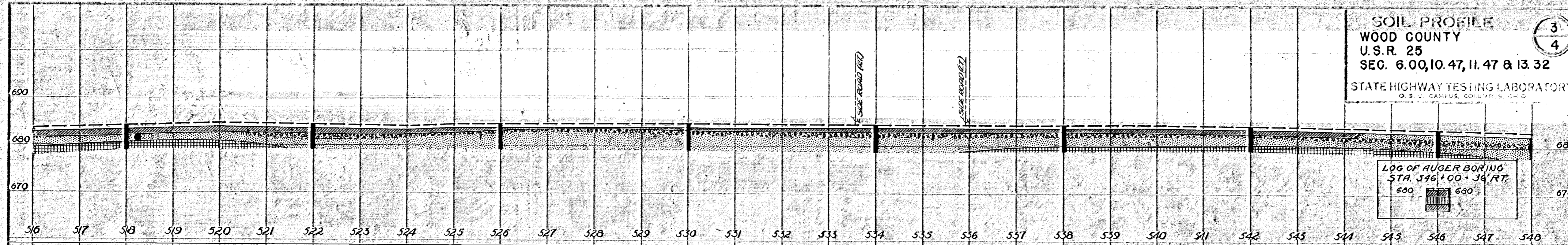
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4

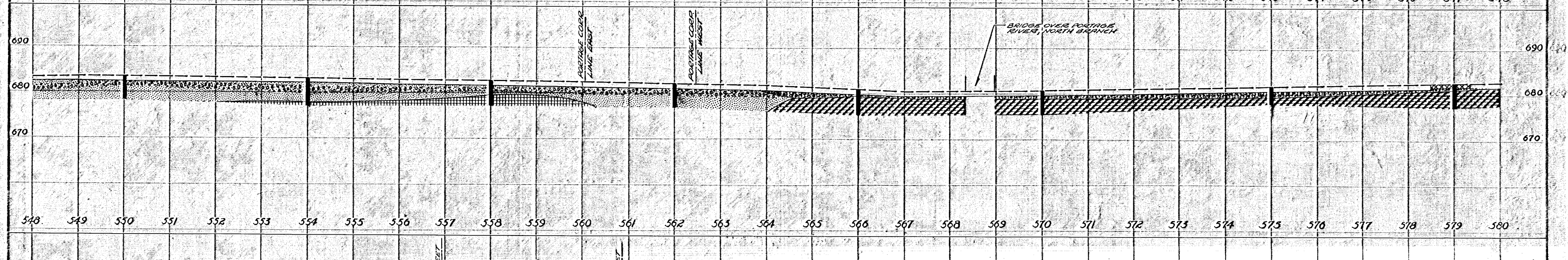
LOG OF AUGER BORING
 STA. 546+00 - 36 FT.
 600 680

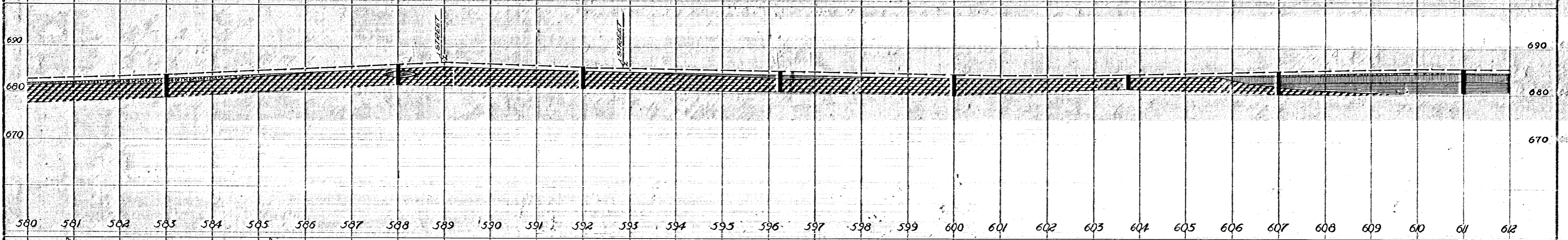


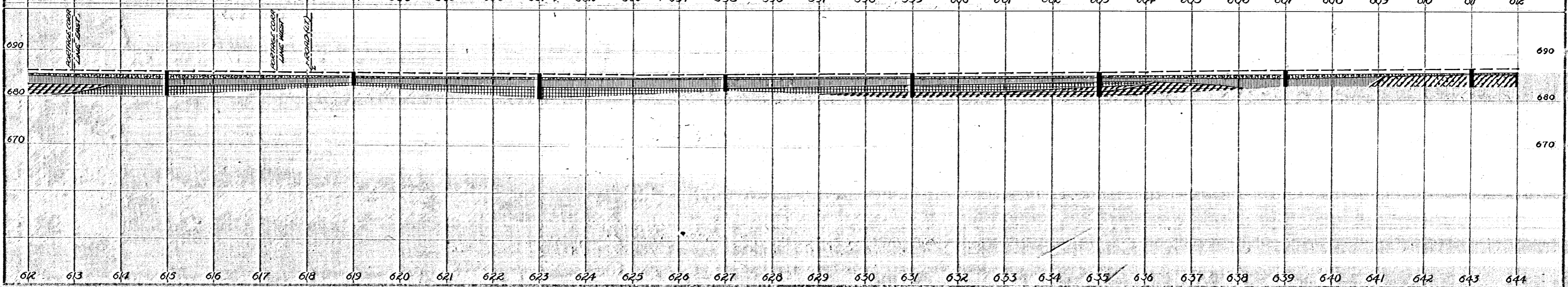
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3
 4



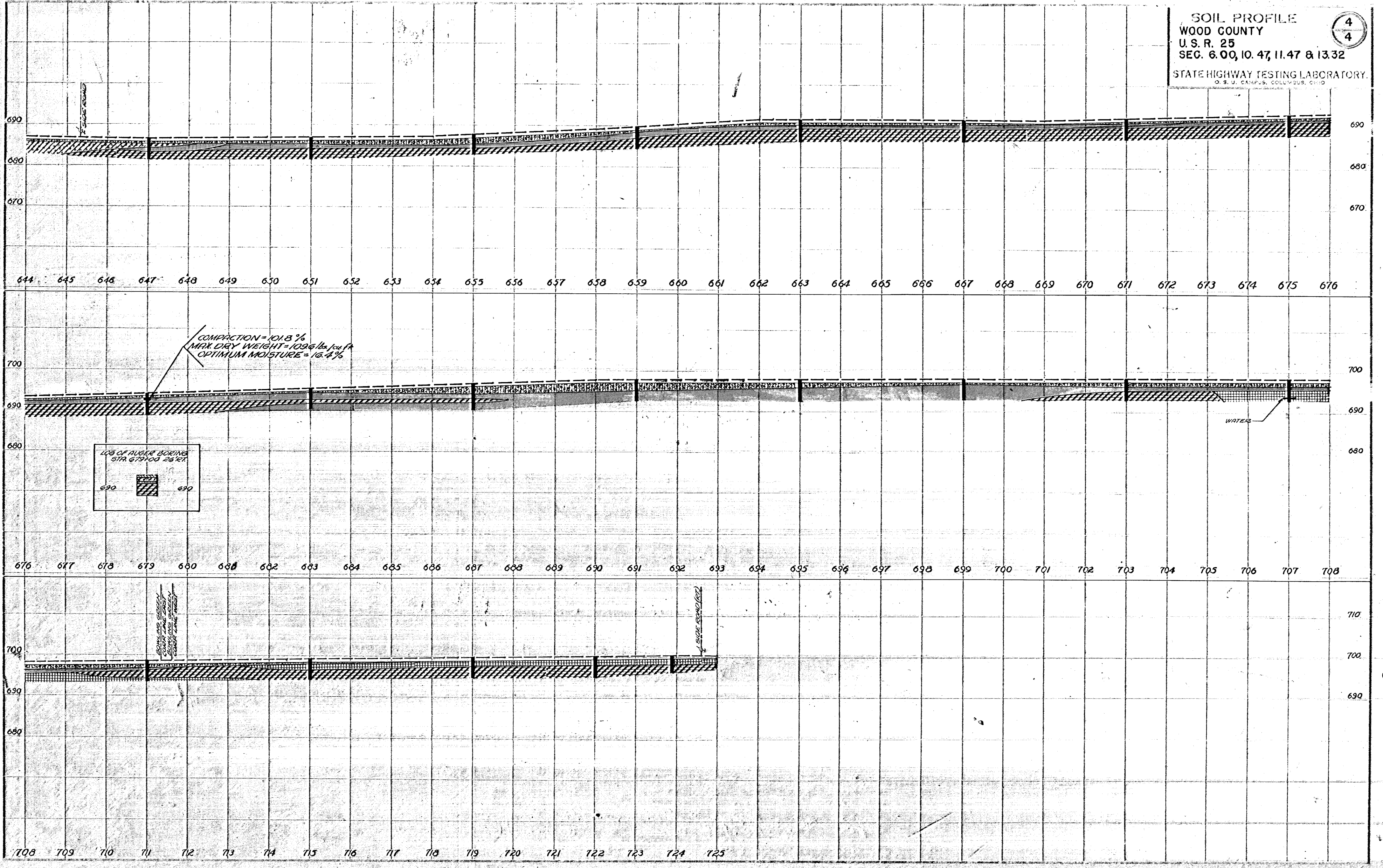






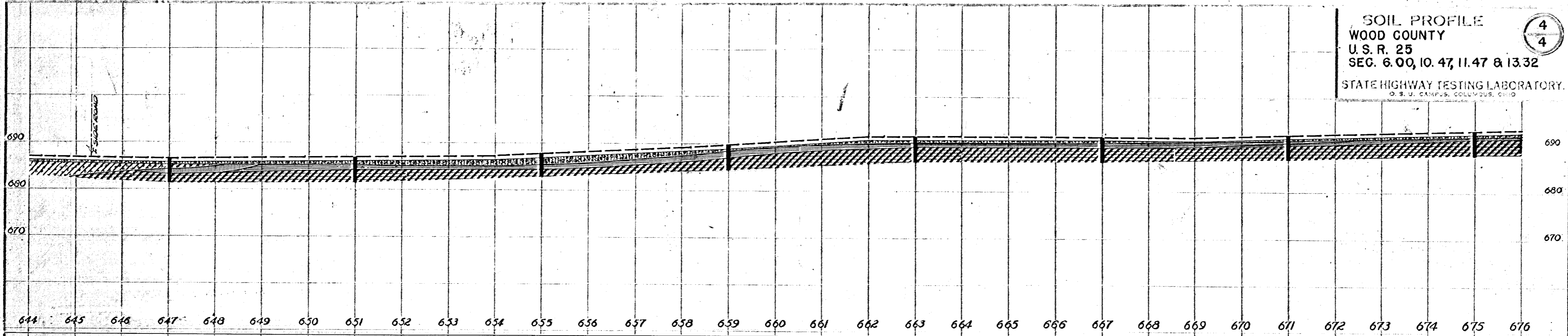
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4
4



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4
4



COMPACTION = 101.8 %
MAX DRY WEIGHT = 109.6 lbs/cu ft
OPTIMUM MOISTURE = 16.4 %

